

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N1/20 C12P17/18 A61K31/535 C12R1/465
//(C12P17/18,C12R1:465)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N C12P C12R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 194 378 A (SALITURO ET AL) 16 March 1993 (1993-03-16) cited in the application	18-20
A	column 1, line 66 - column 5, line 24 column 7, line 57 - column 8, line 2 examples 1,2	1-3
X	US 5 116 756 A (DUMONT ET AL) 26 May 1992 (1992-05-26) cited in the application	18-20
A	claim 1	1-3
X	US 4 894 366 A (OKUHARA ET AL) 16 January 1990 (1990-01-16) cited in the application	18-20
A	column 8, line 58 - column 13, line 22 examples 1,2 claim 12	1-3
	----- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

14 Apr11 2005

Date of mailing of the international search report

04/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

van de Kamp, M

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 624 842 A (OKUHARA ET AL) 29 April 1997 (1997-04-29) cited in the application	18-20
A	claim 1	1-3
A	----- MOTAMEDI H ET AL: "The biosynthetic gene cluster for the macrolactone ring of the immunosuppressant FK506" EUROPEAN JOURNAL OF BIOCHEMISTRY, vol. 256, no. 3, 1998, pages 528-534, XP000906738 ISSN: 0014-2956 abstract page 528, right-hand column, line 16 - page 529, left-hand column, line 30 -----	
A	REYNOLDS K A ET AL: "Rapamycin, FK506, and ascomycin-related compounds" DRUGS AND THE PHARMACEUTICAL SCIENCES, vol. 82, no. 82, 1997, pages 497-520, XP000906777 ISSN: 0360-2583 the whole document -----	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2004/003380

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: —
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 18 and 19 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Information on patent family members				International Application No /IB2004/003380	
Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5194378	A	16-03-1993	US	5116756 A	26-05-1992
			CA	2059706 A1	29-07-1992
			EP	0497515 A1	05-08-1992
			JP	5130860 A	28-05-1993
			JP	6091816 B	16-11-1994
US 5116756	A	26-05-1992	CA	2059706 A1	29-07-1992
			EP	0497515 A1	05-08-1992
			JP	5130860 A	28-05-1993
			JP	6091816 B	16-11-1994
			US	5194378 A	16-03-1993
US 4894366	A	16-01-1990	AT	104984 T	15-05-1994
			AU	592067 B2	04-01-1990
			AU	5059685 A	12-06-1986
			CA	1338491 C	30-07-1996
			CN	85109492 A ,B	10-06-1986
			CN	1056103 A ,C	13-11-1991
			CY	1912 A	30-11-1985
			DE	3587806 D1	01-06-1994
			DE	3587806 T2	25-08-1994
			DE	19575026 I2	28-03-2002
			DK	556285 A	04-06-1986
			EP	0184162 A2	11-06-1986
			ES	8705038 A1	01-07-1987
			FI	854731 A ,B,	04-06-1986
			FI	864527 A ,B,	07-11-1986
			GR	852904 A1	01-04-1986
			HK	18596 A	09-02-1996
			HU	41842 A2	28-05-1987
			HU	198064 B	28-07-1989
			IE	62865 B1	08-03-1995
			IL	77222 A	10-06-1991
			IL	92345 A	10-06-1991
			JP	2828091 B2	25-11-1998
			JP	10067783 A	10-03-1998
			JP	3211891 B2	25-09-2001
			JP	11343294 A	14-12-1999
			JP	2976966 B2	10-11-1999
			JP	11012281 A	19-01-1999
			JP	1686568 C	11-08-1992
			JP	3046445 B	16-07-1991
			JP	3072483 A	27-03-1991
			JP	1983737 C	25-10-1995
			JP	3072484 A	27-03-1991
			JP	7020970 B	08-03-1995
			JP	2746134 B2	28-04-1998
			JP	7224066 A	22-08-1995
			JP	1670486 C	12-06-1992
			JP	3038276 B	10-06-1991
			JP	61148181 A	05-07-1986
			KR	9310704 B1	08-11-1993
			KR	9310705 B1	08-11-1993
			KR	9310706 B1	08-11-1993
			KR	9310707 B1	08-11-1993
			KR	9310708 B1	08-11-1993
			LU	90317 A9	11-01-1999
			MX	9202943 A1	30-06-1992

International Application No			/IB2004/003380	
Information on patent family members				
Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 4894366	A	NL 960023 I1	02-12-1996	
		NO 854833 A	04-06-1986	
		NO 168372 B	04-11-1991	
		NZ 214407 A	28-11-1989	

US 5624842	A	29-04-1997	US 6028097 A	22-02-2000
			US 2003170831 A1	11-09-2003
			US 6201005 B1	13-03-2001
			US 2003229115 A1	11-12-2003
			US 2004029908 A1	12-02-2004
			US 6482845 B1	19-11-2002
			US 5830717 A	03-11-1998
			AT 104984 T	15-05-1994
			AU 592067 B2	04-01-1990
			AU 5059685 A	12-06-1986
			CA 1338491 C	30-07-1996
			CN 85109492 A ,B	10-06-1986
			CN 1056103 A ,C	13-11-1991
			CY 1912 A	30-11-1985
			DE 3587806 D1	01-06-1994
			DE 3587806 T2	25-08-1994
			DE 19575026 I2	28-03-2002
			DK 556285 A	04-06-1986
			EP 0184162 A2	11-06-1986
			ES 8705038 A1	01-07-1987
			FI 854731 A ,B,	04-06-1986
			FI 864527 A ,B,	07-11-1986
			GR 852904 A1	01-04-1986
			HK 18596 A	09-02-1996
			HU 41842 A2	28-05-1987
			HU 198064 B	28-07-1989
			IE 62865 B1	08-03-1995
			IL 77222 A	10-06-1991
			IL 92345 A	10-06-1991
			JP 2828091 B2	25-11-1998
			JP 10067783 A	10-03-1998
			JP 3211891 B2	25-09-2001
			JP 11343294 A	14-12-1999
			JP 2976966 B2	10-11-1999
			JP 11012281 A	19-01-1999
			JP 1686568 C	11-08-1992
			JP 3046445 B	16-07-1991
			JP 3072483 A	27-03-1991
			JP 1983737 C	25-10-1995
			JP 3072484 A	27-03-1991
			JP 7020970 B	08-03-1995
			JP 2746134 B2	28-04-1998
			JP 7224066 A	22-08-1995
			JP 1670486 C	12-06-1992
			JP 3038276 B	10-06-1991
			JP 61148181 A	05-07-1986
			KR 9310704 B1	08-11-1993
			KR 9310705 B1	08-11-1993
			KR 9310706 B1	08-11-1993
			KR 9310707 B1	08-11-1993
